

CRACKS IN THE NEW JAR: THE LIMITS OF TAILORED DETERRENCE

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The U.S. embraced “tailored deterrence” in its 2006 and 2010 *National Security Strategies*. Tailored deterrence seeks to customize whole-of-government deterrence strategies to specific actors and scenarios through a deterministic approach that combines rational deterrence theory with effects-based operations concepts. Consequently, tailored deterrence neglects some of the most important elements of contemporary deterrence theory, including the uncertainty and cognitive biases inherent to both intelligence assessments and international relations. While deterrence remains relevant, the U.S. objective to “decisively influence the adversary’s decision-making calculus” overstates tailored deterrence’s potential and does not adequately acknowledge its shortfalls. The U.S. approach to tailored deterrence is flawed because of its reliance on two erroneous assumptions: that the U.S. can reliably assess adversaries’ decision calculus; and that the U.S. can decisively influence adversaries’ choices. The U.S. should recognize that deterrence is a blunt instrument, not a scalpel, and modify its deterrence strategies accordingly.

CRACKS IN THE NEW JAR: THE LIMITS OF TAILORED DETERRENCE

Deterrence is back. Although deterrence lost its centrality in U.S. security policy for many years, the U.S. embraced a modified version of the Cold War concept in its 2006 and 2010 *National Security Strategies*.¹ The original concept of deterrence—preventing an attack by credibly threatening unacceptable retaliation—has been reborn as “tailored deterrence.” Tailored deterrence seeks to customize whole-of-government deterrence strategies to specific actors and scenarios. Ideally, this approach would address the flaws in rational deterrence theory and enable the U.S. to influence a wider range of adversaries.

However, the U.S. approach to tailored deterrence largely ignores decades of theoretical development and criticism of rational deterrence theory. The DoD’s *Deterrence Operations Joint Operating Concept* (DO-JOC) describes a deterministic approach that combines rational deterrence theory with effects-based operations concepts. Consequently, tailored deterrence neglects some of the most important elements of contemporary deterrence theory, including the uncertainty and cognitive biases inherent to both intelligence assessments and international relations.

While deterrence remains relevant, the U.S. objective to “decisively influence the adversary’s decision-making calculus”² overstates tailored deterrence’s potential and does not adequately acknowledge its shortfalls. The U.S. approach to tailored deterrence is flawed because of its reliance on two erroneous assumptions: that the U.S. can reliably assess adversaries’ decision calculus; and that the U.S. can decisively influence adversaries’ choices. The U.S. should recognize that deterrence is a blunt instrument, not a scalpel, and modify its deterrence strategies accordingly.

Deterrence Definition and Requirements

The persistent popularity of deterrence can largely be attributed to its apparent simplicity. It is not difficult to understand the concept of intimidating or otherwise convincing an adversary not to take an action. The Department of Defense defines deterrence as, “The prevention from action by fear of the consequences. Deterrence is a state of mind brought about by the existence of a credible threat of unacceptable counteraction.”³

Theorists further subdivided deterrence to explain the nuances of its application. Deterrence by punishment is the threat of retaliation if an adversary takes an action. Deterrence by denial is the threat of successfully defeating an adversary’s action.⁴ Another distinction exists between general deterrence and immediate deterrence. The former is a broad approach to forestall a challenge to the status quo, while the latter is a crisis response to a specific, emerging threat.⁵

Just as there is broad agreement on the definition of deterrence, there is also consensus on its requirements. A deterring actor must communicate a credible threat to an opponent that is of sufficient magnitude to change the results of the opponent’s cost-benefit analysis.⁶ However, agreement on deterrence’s general parameters has not settled the long-running dispute over deterrence’s effectiveness or proper role in national security policy. More than a half-century of debate has produced a diverse, compelling and incomplete collection of theories that cannot reliably predict or explain deterrence success or failure.

The Evolution of Deterrence Theory

The advent of the nuclear age elevated the concept of deterrence to prominence in U.S. academic and governmental circles. Deterrence was particularly attractive to

many American academics since it is consistent with the Realist school of International Relations to which they already subscribed.⁷ Although deterrence was an old concept, the incomparably destructive power of nuclear weapons and Cold War bipolarity triggered a theoretical quest for a complete understanding of the art of intimidation. Robert Jervis adroitly categorized the development of deterrence theory into three waves.⁸

First-Wave Deterrence Theory. The first wave of deterrence theory emerged immediately after World War II, as academics struggled to understand the implications of the atomic bomb for war and international relations. Bernard Brodie *et alia* led the wave with their 1946 book, *The Absolute Weapon*, which presciently discussed the possibility of a nuclear arms race and remarked that in “the atomic age the threat of retaliation is probably the strongest single means of determent.”⁹ The authors also grasped the Pyrrhic nature of victory in a nuclear exchange, leading to Bernard Brodie’s famous observation that the U.S. military must shift its focus from winning wars to averting them.¹⁰

Second-Wave Deterrence Theory. The second wave of deterrence theory followed in the 1950s. Confronted with the nuclear-armed superpower standoff that first-wave theorists predicted, second-wave scholars sought to define how to prevent a disarming Soviet first strike. In 1958, Albert Wohlstetter’s RAND Report, *The Delicate Balance of Terror*, warned that a small nuclear arsenal would be insufficient for deterrence, and counseled that “to deter an attack means being able to strike back in spite of it.”¹¹ Thomas Schelling employed game theory in his 1958 analysis of surprise attack situations to demonstrate that the probability of conflict between adversaries

depends on their perceptions of the others' intentions and their fear of being attacked first.¹² Thus, a secure second-strike capability and clearly communicating a threat to retaliate became the bedrock of second-wave theory.

During the 1960s, the Soviet Union viewed the U.S. second-strike capability as a first-strike threat. Unwilling to accept the idea of again suffering a surprise attack and uncertain if it could successfully retaliate, the Soviet Union rejected deterrence and prepared for preemptive nuclear war.¹³ However, as Soviet nuclear forces reached parity with U.S. forces in the 1970s, Moscow accepted retaliation as a viable option. The Soviet Union ultimately adopted a concept of deterrence similar to second-wave theory, but without U.S. concepts such as mutually assured destruction.¹⁴

Since the U.S. also needed to deter a Soviet attack on Western Europe and other allies, second-wave theorists grappled with the concept of extended deterrence. Schelling considered deterrent threats to respond to an attack on the defender's homeland inherently credible, while threats to extend deterrence to allies "must be made credible."¹⁵ Second-wave theorists postulated several ways to make extended deterrence threats convincing, including maintaining a reputation of loyalty to one's allies; stationing military forces in defended countries; and convincing the adversary that retaliation would be essentially automatic.¹⁶ Perhaps the most powerful facet of second-wave extended deterrence theory was Schelling's "threat that leaves something to chance." This concept holds that ambiguous or implausible threats can still deter aggression between nuclear powers, since even a conventional test of extended deterrence risks inadvertent nuclear war.¹⁷

Second-wave deterrence theory is also known as “rational deterrence theory” since it relies on specific assumptions about the actors involved. First, rational deterrence theory assumes that the actors are rational and that they will make choices that maximize their expected utility according to microeconomic theory. In other words, actors will always make decisions in order to maximize their gains and minimize their losses. Second, the theory relies on a principle explanatory assumption: the only difference between actors’ behavior stems from differing opportunities, not other influences such as culture or norms. Third, consistent with its Realist origins, second-wave theory assumes that states will behave as if they are unitary rational actors—the theory does not address leadership personalities or internal politics.¹⁸

In addition to rational deterrence theory’s three formal assumptions, there are several implied limitations and requirements. The theory is limited in scope, since it only deals with hostile relationships between states.¹⁹ The theory requires that actors incorporate new information into their decision-making process, so they realize when a prospective gain has turned into a loss. Actors must also consider the probabilities of various possible outcomes when making a decision.²⁰ Finally, the theory’s principle explanatory assumption implies that all actors have the same risk tolerance.²¹

Despite any limitations of second-wave deterrence theory, it proved to be unmistakably persuasive. The theory’s apparent simplicity provided a much-needed framework for U.S. policymakers, and Washington dutifully implemented many of the theory’s prescriptions.²² The U.S. fielded a large nuclear arsenal to ensure a second-strike capability, strove to establish the credibility of its extended deterrence commitments, and occasionally attempted to make the Soviet Union doubt America’s

restraint.²³ The second wave of deterrence theory was compelling, self-evident and provided a cost-effective “way” for the U.S. to pursue the “ends” of its containment strategy.

Third-Wave Deterrence Theory. Critics assailed second-wave theory for its overreliance on deduction and game theory and for incorporating too little evidence. Robert Jervis identified the third wave of deterrence theory as beginning in the 1970s with the search for evidence to support or refute the second wave.²⁴ The third wave successfully applied both empirical analysis and psychology to question the assumptions and implications of second-wave theory.

Empirical analysis, most famously Alexander George and Robert Smoke’s 1974 book, *Deterrence in American Foreign Policy*, found that the history of conventional deterrence failures did not support the predictions of second-wave theory. Even when the theoretical conditions for success (i.e. commitment, communication, and a credible threat) were met, deterrence often failed in the real world.²⁵ This historical analysis indicated that rational deterrence theory ignored critical factors that can determine deterrence success or failure. Third-wave theory explored these missing factors, including: variations in the aggressors’ risk-taking propensity; the utility of rewards in addition to threats; and the influence of domestic politics on decision-makers.²⁶ The empirical results also drove the third wave to focus more analytical effort on the aggressor’s decision-making process, as opposed to the second wave’s nearly exclusive emphasis on the credibility of the defender’s threats.²⁷

Consequently, third-wave theorists sought to demonstrate that psychological factors often cause decision-makers to behave in ways that contradict rational

deterrence theory's explicit and implied assumptions. Misperception is one of the most important psychological factors—the defender may misunderstand the threat, and the aggressor may fail to appreciate the defender's resolve and/or capability to retaliate.²⁸ Contrary to the requirements of rational deterrence theory, third-wave theory states that decision-makers are not very good at estimating risks, and they cannot make fine adjustments to their cost-benefit analysis based on anything but the most drastic change in probabilities.²⁹ Similarly, powerful cognitive biases affect both sides of the deterrence relationship, since people prefer consistency to dissonant information. Actors are likely to interpret new information in accordance with their pre-existing beliefs.³⁰

Despite the success of the empirical and psychological approach in casting doubt on rational deterrence theory, third-wave theory did not resolve the deficiencies it identified.³¹ No “grand unified theory” of deterrence emerged in the decades after Jervis identified the trend. An academic standoff continues between third-wave scholars and rational deterrence theorists, with the latter arguing that the case-study methodology suffers from selection bias and is not suitable for theory verification.³² In the end, third-wave deterrence theory did not replace rational deterrence theory so much as it created an intellectual counterweight to its influential antecedent.

Deterrence theory continued to evolve in concept and application as theorists and strategists reframed their views to reflect significant world events. The end of the Cold War shifted attention from the Soviet Union to deterring rogue states; the 9/11 attacks stimulated more discussion of deterring non-state actors and their sponsors. Ultimately, the U.S. sought an approach that would apply to the entire spectrum of

challenges. However, the fragmented nature of deterrence theory provided only a rough foundation for the concept of tailored deterrence.

U.S. Policy and Tailored Deterrence

President George W. Bush's administration introduced the term "tailored deterrence" into U.S. national policy documents in 2006, with the release of the administration's second *National Security Strategy* (NSS) and *Quadrennial Defense Review* (QDR). These documents represented a major shift in national security policy, as President Bush's 2002 NSS had downplayed the effectiveness of deterrence and advocated preventive war to remove threats from rogue states.³³

Four years and one such preventive war later, however, the Bush administration resurrected and reinvented deterrence. The 2006 QDR heralded a shift "from 'one size fits all' deterrence to tailored deterrence for rogue powers, terrorist networks and near-peer competitors."³⁴ The QDR offered few details on how the new brand of deterrence would operate; the 2006 DO-JOC served this purpose.

The Obama administration appears to have continued the Bush-era tailored deterrence policy unaltered. The 2010 NSS and QDR discuss tailored deterrence in much the same terms as their 2006 predecessors.³⁵ According to the 2010 QDR:

Credibly underwriting U.S. defense commitments will demand tailored approaches to deterrence. Such tailoring requires an in-depth understanding of the capabilities, values, intent, and decision making of potential adversaries, whether they are individuals, networks, or states. Deterrence also depends on integrating all aspects of national power.³⁶

Defining Tailored Deterrence. Despite the change in administrations, the 2006 DO-JOC remains the definitive open-source description of the U.S. approach to tailored deterrence. U.S. Strategic Command (USSTRATCOM) led the creation of the document, but it reflects a DoD-wide concept that was approved by Secretary of

Defense Donald Rumsfeld.³⁷ Since its publication, USSTRATCOM's leaders have repeatedly re-emphasized the DO-JOC's principles for "waging deterrence," finding them "perfectly satisfactory" as recently as 2010.³⁸

The DO-JOC seeks to describe how the DoD will work with the rest of the U.S. government to "decisively influence the adversary's decision-making calculus in order to prevent hostile actions against US vital interests."³⁹ The U.S. must identify which adversaries it wishes to deter and what actions they are to be deterred from taking, then tailor operations to the characteristics of each adversary and scenario.⁴⁰ The document describes in general terms how to assess adversaries' decision calculus, the "ways" to influence adversaries, and the "means" that the DoD can apply to achieve the above-stated purpose ("ends").

The DO-JOC assumes that adversaries' decisions to act, or not, are based on deliberate calculations of the value and probability of the outcome of alternate courses of action. It also assumes that the U.S. can identify and assess at least some elements of each adversary's decision calculus.⁴¹ Beyond these assumptions, the DO-JOC breaks adversary decision calculus down into three elements: the benefits of an action; the costs of an action; and the consequences of restraint (i.e. what will happen if the adversary does not take the contemplated action.)

The DO-JOC also assumes that the U.S. will be able to influence at least some adversary "values and perceptions relevant to their decision-making."⁴² The DO-JOC states that the ways the U.S. will employ to achieve its ends will be "credibly threatening to deny benefits and/or impose costs while encouraging restraint."⁴³ The DO-JOC envisions military deterrence operations as part of a larger national deterrence strategy

that integrates all elements of national power. These interagency activities are to be conducted on a daily basis during peacetime, crisis and war.⁴⁴

As for the means to be employed, the DO-JOC describes the required capabilities in terms of aspirational visions for the joint force of 2025. Nevertheless, the ideas are illustrative of the current U.S. approach to tailored deterrence. The document calls for robust supporting capabilities such as intelligence, command and control, and forward-deployed forces to enable “direct means” that influence adversaries’ decision calculus. Direct means include: strategic communications; missile defenses; and nuclear, conventional, and non-kinetic global strike capabilities.⁴⁵

The DO-JOC’s construct for tailored deterrence does not come without risks. The DO-JOC acknowledges that some adversaries may be very difficult to deter, and the document lists many other risks and challenges. The risks include: uncertainties in estimates of adversary decision calculus; mirror-imaging of adversaries; miscalculation of an adversary’s responses to deterrent actions; and the difficulty of detecting changes in adversary decision calculus during a crisis.⁴⁶ The DO-JOC separately identifies challenges to tailored deterrence, which include: variations in adversaries’ risk-taking propensities; the difficulty of deterring an actor when there is an asymmetry of interests; and the challenge of deterring non-state actors.⁴⁷

The DO-JOC’s identification of risks and challenges is encouraging, but its discussion of how to mitigate those risks is disappointingly mechanical. The DO-JOC’s methods to mitigate risks are generally unrealistic proposals to resolve wicked problems through additional analysis, coordination, and/or planning.⁴⁸ Although the effectiveness of deterrence will vary according to the situation, the DO-JOC’s prescriptions appear to

do little to overcome the uncertainties and friction inherent to deterrence relationships. The DO-JOC's risk mitigation discussion is the strategic equivalent of acknowledging that the road is icy, but continuing to drive seventy miles per hour.

The DO-JOC purports to offer "a new approach to understanding the ways and means necessary to achieve the ends of deterrence."⁴⁹ Despite the document's use of an often-hyperbolic effects-based operations and transformational lexicon, however, the DO-JOC describes very little that is truly new. When compared to its theoretical roots, tailored deterrence appears to be old wine in a new jar.

What Theory Drives the Practice? The DO-JOC's approach to tailored deterrence, "credibly threatening to deny benefits and/or impose costs while encouraging restraint,"⁵⁰ is an amalgam of second and third-wave deterrence theory, heavily influenced by effects-based operations concepts. 'Denying benefits' and 'imposing costs' are simply alternate names for deterrence by denial and deterrence by punishment, respectively. 'Encouraging restraint' incorporates Schelling's and third-wave theorists' ideas of offering the adversary reassurance and/or rewards for maintaining the status quo.⁵¹

The DO-JOC relies on many second-wave assumptions but rejects others in favor of third-wave considerations. Consistent with rational deterrence theory, the DO-JOC assumes that actors' choices are based on rational calculations of the expected costs and benefits of an action. Similarly, the DO-JOC accepts second-wave theory's implied assumption that actors will continually incorporate new information into their decision calculus. However, tailored deterrence rejects second-wave theory's principle explanatory and unitary rational actor assumptions, requiring instead that each

adversary be viewed as a complex system of unique decision-makers. The DO-JOC also utilizes third-wave theory by allowing for variations in adversaries' risk taking propensities.

Nevertheless, tailored deterrence largely ignores some of the most important elements of third-wave theory. The DO-JOC pays little attention to psychological factors that undermine deterrence, including cognitive barriers to perception and decision-making. The DO-JOC acknowledges and discusses several areas of uncertainty, but presents these ambiguities as solvable problems rather than inescapable fog and friction. The DO-JOC's language indicates that tailored deterrence owes more to the deterministic concepts of effects-based operations than it does to the more Clausewitzian cautions of third-wave deterrence theory.

Although effects-based operations concepts were never fully incorporated into joint doctrine, two elements that were absorbed—effects and the systems perspective—had a profound impact on tailored deterrence. First, the DO-JOC states that deterrence planning must include identifying what effects the U.S. desires to have on an adversary's decision calculus.⁵² The use of effects terminology is consistent with joint doctrine, but many planners and academics have found that stating objectives in terms of effects creates more confusion than clarity.⁵³ Additionally, the doctrinal use of effects leads the DO-JOC to seek measures of effectiveness in order to assess the success or failure of deterrent actions. The document initially acknowledges the near impossibility of proving a causal connection between deterrent actions and outcomes, or measuring the contribution of deterrent actions to adversary restraint. However, the DO-JOC goes on quixotically to discuss how such elusive metrics should be constructed.⁵⁴ This

mechanical approach to assessment clearly emphasizes the deterministic perspective of effects-based operations over the views of both second and third-wave deterrence theorists, who maintain that deterrence success is difficult to assess in historical retrospect, much less in real-time.⁵⁵

Second, and more revealing, is the DO-JOC's statement that "a systems approach to understanding the adversary and the operating environment underpins deterrence operations."⁵⁶ The systems perspective in joint doctrine emphasizes understanding an adversary by constructing models of interrelated systems and identifying nodes and the links between them. This perspective is intended to yield a better understanding and enable planners to identify effects and centers of gravity.⁵⁷ As many critics have pointed out, however, the systems approach is most appropriate for understanding and predicting effects on closed systems, such as integrated air defense systems or electrical power grids. Open systems, such as societies and national political leadership, tend to defy both the systems approach to understanding them and deterministic, effects-based attempts to influence them.⁵⁸

Yet, these challenges to effects-based concepts are the same factors that limit the effectiveness of tailored deterrence: the extreme difficulty in determining adversaries' decision calculus and decisively influencing adversaries' choices. Third-wave theory and history demonstrate that no mixture of deterrence theories and effects-based operations concepts can fully negate the uncertainties and friction inherent to deterrence relationships.

Assessing Adversaries' Decision Calculus

Tailored deterrence requires that the U.S. understand each adversary's decision calculus with a high level of certainty and detail in order to design deterrent actions that

will achieve decisive influence over adversaries' choices. However, tailored deterrence's assumptions oversimplify the basis on which people actually make decisions. People make choices based in part on their perceptions of expected utility, but they are also heavily influenced by other factors, including their personal perspectives and cognitive biases. Many of these factors are enigmatic even to the actors themselves, making decision calculus exceptionally difficult to assess and leaving adversaries' choices largely unpredictable.

History provides many examples of deterrence failures in which the defender misunderstood the adversary's decision calculus and was therefore surprised by an "irrational" action. Keith Payne cites the Japanese attack on Pearl Harbor, China's entry into the Korean War, and the Soviet deployment of nuclear missiles to Cuba as examples in which U.S. estimates of adversary decision calculus predicted the opposite outcome.⁵⁹ Janet Gross Stein uses Egypt's 1973 surprise attack against Israel and Iraq's 1990 invasion of Kuwait as other case studies of intelligence and deterrence failures.⁶⁰ In all these examples, the defenders assessed that their presumably rational adversary would refrain from action because upsetting the status quo would result in a net loss.

However, the deterrence failures listed above cannot be attributed to irrationality. As Keith Payne observed, there is an often-unappreciated difference between rational and reasonable decision-making.⁶¹ If an actor is rational, then they make decisions that logically link to their objectives. However, whether or not an actor's decisions are reasonable is a matter of perspective. If an outside observer does not share or understand the adversary's goals and values, then the adversary's decisions may

appear unreasonable, and will therefore be unpredictable.⁶² Second-wave theory and tailored deterrence both correctly assume that truly irrational actors are rare, but fail to appreciate how little this assumption matters when compared to the impact of the actors' divergent perspectives on a deterrence relationship.

The Adversary's Perspective. Opposing leaders frequently see the world much differently because of the large differences in the leaders' individual expectations and beliefs. Cognitive psychology shows that all people develop unique belief systems, or "schemata," based on their experiences to help organize and interpret information. These schemata are necessary to functioning in a complex world, but they also "constrain and condition how and what leaders perceive."⁶³ As a result of these differing contexts, leaders may interpret the same situation quite differently. For example, while the U.S. confidently concluded that China would stay out of the Korean War, Mao Zedong attacked the U.S. Eighth Army in North Korea because he believed China was being encircled by America.⁶⁴

Leaders' perceptions are also shaped by the mental shortcuts, or "heuristics," that all people use to selectively process and recall information. One of the most powerful heuristics results in the availability bias—the tendency for people to interpret events in terms of other events they can easily remember.⁶⁵ This results in leaders being disproportionately influenced by historical events that they or their country experienced directly.⁶⁶ Saddam Hussein's perspective on combat in the Iran-Iraq War led him to disregard U.S. airpower; he similarly concluded from the U.S. experience in Lebanon that America was casualty averse and would not be able to remove him from Kuwait.⁶⁷

Third-wave theory also maintains that domestic political considerations are often a critical factor in adversaries' decisions. This factor is consistent with Robert Jervis' observation that leaders often make a decision based on one value dimension (e.g. domestic politics) without fully considering its impact on other dimensions.⁶⁸ Thus, Anwar Sadat's primary concerns in 1973 were domestic politics, regaining lost honor and the consequences of not attacking, rather than the probable military outcome of attacking Israel.⁶⁹

The Deterrer's Perspective. In its estimation of adversary decision calculus, the U.S. is constrained by the same cognitive barriers that influence an adversary's viewpoint, as well as other biases that commonly undermine intelligence analysis and policy making.

Intelligence estimates of all kinds are prone to the bias of mirror-imaging, which is the assumption that the adversary thinks and operates like the analyst's country.⁷⁰ Mirror-imaging is closely related to the availability heuristic, since when reliable intelligence is lacking, analysts and policymakers alike will tend to fill in the blanks with information that is readily recalled: their nation's capabilities, plans, and intentions. For example, Israel's emphasis on airpower drove it to judge Egypt's readiness in 1973 by an Israeli standard. Due to this mirror-imaging, Israel ignored compelling evidence of an imminent Egyptian attack, believing that Sadat would be deterred at least until Egypt reconstituted its air force.⁷¹

Analysts also tend to be biased toward viewing the adversary's actions as the result of centralized direction and to underestimate other explanations, such as coincidences, accidents or mistakes.⁷² The centralized direction bias is particularly

troublesome for the analysis of adversary decision calculus since it causes analysts to “overestimate the extent to which other countries are pursuing coherent, rational, goal-maximizing policies” and to “overestimate the predictability of future events in other countries.”⁷³ The power of this bias and the unpredictability of even a well-known adversary were highlighted in 1962, shortly before the U.S. discovered Soviet nuclear missiles in Cuba. The U.S. erroneously concluded in a Special National Intelligence Estimate that the Soviet Union would not put offensive weapons in Cuba because such a move would be inconsistent with the observed patterns of Soviet behavior and American estimates of Khrushchev’s decision calculus.⁷⁴

Decision-makers may also be affected by motivated biases, which result from subconscious psychological pressure that distorts perception. Motivated biases differ from cognitive biases because the source of the error is the person’s fear and needs, rather than expectations or cognitive limits.⁷⁵ This tendency results in defensive avoidance techniques to selectively process information that supports their favored policy to reduce anxiety. In May 1967, pressure from domestic and Arab constituencies probably motivated Egypt’s overestimation of its chances of winning a war with Israel. Egypt’s leaders initially assessed that war would result in low benefits and high costs. However, contrary to rational deterrence theory’s requirements, Egypt’s leaders reversed their estimate a few weeks later and chose war.⁷⁶

Motivated biases are more powerful when decision-makers are afraid or feel helpless.⁷⁷ Fear and anxiety can disrupt information processing, such as retention and memory, and can result “in distorted processes of defensive avoidance and hypervigilance.”⁷⁸ These insights indicate that predicting or influencing adversary

decision calculus is even more difficult in crisis situations. They also call into question deterrence's objective of compelling rational behavior by instilling fear.

Third-wave theory and case studies demonstrate that assessing adversaries' decision calculus is extremely difficult and cannot be used as a reliable anchor for tailored deterrence strategies. One final example serves to demonstrate that misperception and bias are the norm, not the exception in intelligence and international relations. In 2003, coercive threats against Saddam Hussein failed to compel Iraq's compliance with U.S. demands because Saddam was much more concerned about preventing a coup and the threat from Iran than he was about U.S. threats to invade. The misunderstanding was mutual, as Saddam believed he understood enough about Washington's decision calculus to at least deter a U.S. march to Baghdad, if not an invasion of southern Iraq.⁷⁹ Given the pervasive nature of such misperceptions, the assumption that the U.S. can reliably assess adversaries' decision calculus is clearly in error and represents a significant flaw in tailored deterrence.

Influencing Adversaries' Choices

The U.S. assumption that it can decisively influence adversaries' choices is the second flaw in tailored deterrence. This assumption is erroneous for three reasons. First, misperceptions and biases limit an actor's ability to send effective deterrent messages. Second, adversaries are similarly constrained in their understanding of such signals. Third, tailored deterrence campaigns are limited by a lack of interagency unity of effort and inescapable friction in execution. These limitations suggest that only the most overt, overwhelming and credible deterrent threats have utility, while attempts to deter gradually via precise messages are often misguided.

The Challenge of Sending Effective Deterrent Messages. In addition to the previously described difficulties in understanding adversaries' decision calculus, a deterring actor is constrained by biases that accompany attempts to influence others.

The egocentric bias leads people to overestimate their influence over others and to see cause-and-effect linkages that do not exist. This tendency can cause policymakers to perceive an adversary's behavior as targeted toward them and that the adversary's behavior was caused by the policymaker's previous actions.⁸⁰ This phenomenon is a double threat to deterrence strategies. First, the egocentric bias may inflate the policymaker's belief that an adversary can be deterred. Second, the bias can result in erroneous assessments that deterrence is working when, in fact, the adversary's restraint is explained by other factors.⁸¹

Another common limitation on an actor's ability to send deterrence messages is a lack of empathy for how an adversary sees the world.⁸² Policymakers have such powerful beliefs about their nations and they spend so much time immersed in their own plans that they have trouble imagining that an adversary may have different views.⁸³ For example, the U.S. failed to understand Japan's perspective before Pearl Harbor. While Washington thought that Japan would view the prospect of war with the U.S. as disastrous, Japanese leaders concluded they had no other choice but to attack.⁸⁴

A third bias, which is related to the egocentric bias and lack of empathy, is overconfidence: people tend to overestimate their capacity to make complex judgments. Overconfidence leads policymakers to overestimate their ability to influence an adversary via discrete messages.⁸⁵ There is probably no better example of such hubris than U.S. attempts to decisively influence North Vietnamese behavior via

incremental airstrikes and carefully calibrated force deployments. Although these messages were sent from the highest levels of government in Washington, Hanoi did not notice the subtleties, nor did it receive any messages compelling enough to modify its decision calculus.⁸⁶

Adversary Perceptions of Deterrent Messages. Deterrent messages that are clear and credible to the sender and impartial parties may still be missed, misunderstood, or discarded by the receiver.⁸⁷ Adversaries' may misperceive due to any number of factors described above, such as: the availability bias, differing schemata, mirror-imaging, motivated biases and the distorting effects of anxiety.

Actors' perceptions are also heavily influenced by their most recent experiences and concerns. The "evoked set" of data that is active in a person's mind creates a context based on recent events for interpreting new information. If the receiver's context differs from the sender's, misperception is more likely.⁸⁸ Deterrent messages may fail to persuade because an adversary's perception is skewed by other distractions.

Achieving decisive influence over an adversary's choices requires that deterrent signals overcome cognitive biases and persuade the decision-maker to change core beliefs about the likely results of a contemplated course of action. However, strongly held beliefs, such as a leader's conviction that war is necessary, are the most resistant to change.⁸⁹

In order to change a person's attitude, new information must overcome many layers of subconscious defenses.⁹⁰ A person's first defense is failing to see that new information contradicts existing beliefs. The information can be evaded by ignoring it, or interpreting it to fit the person's views, particularly if the data is ambiguous. The second

mechanism is to accept that the information is discrepant, but to reject its validity. A third and related defense is to reject the source of the information as unreliable. Subsequent defenses include acknowledging the contradiction but setting it aside and bolstering the belief by seeking a new justification for an old decision.⁹¹

The subconscious lengths to which people will go to preserve their beliefs make it extremely difficult to deter an adversary gradually with discrete messages. A sufficiently motivated or confused adversary can ignore deterrent signals such as diplomatic messages or the deployment of military forces, especially if such signals are sent incrementally. Adversaries can accommodate isolated messages without changing their beliefs, but are more likely to reevaluate their convictions if a large amount of contradictory information arrives all at once.⁹² By this same logic, subtle signals should have more utility against an adversary who is already deterred, since such messages would seek only to reinforce an existing perception.

Since adversaries' beliefs are resistant to change, it follows that adversaries' perceptions of credibility and interests are dominant factors in deterrence outcomes. First, deterrence signals cannot create credibility that does not exist in the mind of the adversary. Unambiguous scenarios where survival interests are at stake, such as the superpowers' defense of their homelands during the Cold War, provide clarity that reduces the chance of misperception.⁹³ In contrast, America's ambiguous policy toward South Korea in 1950 and Kuwait in 1990 left much more room for adversary error.

Second, carefully crafted deterrence messages cannot balance an inherent asymmetry of interests. The U.S. and South Korea have apparently deterred a second North Korean invasion since 1953, but have been unable to deter Pyongyang from

building nuclear weapons or conducting deadly attacks on South Korean forces.

Despite the substantial U.S. commitment to preventing all three scenarios, North Korea clearly possessed a much greater interest in acquiring a nuclear deterrent and in manufacturing crises.

Limitations of the Whole-of-Government Approach. Even when making a clear and credible commitment, tailored deterrence requires a coherent effort that integrates all elements of national power to implement a national deterrence strategy. General Kevin Chilton, Commander, USSTRATCOM from 2007-2011, acknowledged the existing mechanisms' shortfalls in a 2009 *Strategic Studies Quarterly* article. General Chilton called for an innovative process "to consider and include interagency deterrence courses of action, to make whole-of-government decisions on what courses of action to implement, and to coordinate their execution upon selection."⁹⁴ While an integrated approach is superior to a purely military effort, tailored deterrence's effectiveness is limited by the U.S. government's structure and bureaucratic friction. Consequently, the DO-JOC's vision of day-to-day, interagency deterrence campaigns will go largely unrealized—only the highest-priority issues and crises will garner even an imperfect interagency response.

The State Department would play a vital role in any interagency deterrence effort, given its primacy in diplomacy and DoD's objective of influencing adversaries' political decisions. Yet, the State Department does not appear to share the military's view of tailored deterrence. State Department officials are more likely to view deterrence as intrinsic to the broad and continuous process of diplomatic engagement, rather than as an isolated campaign. The *Quadrennial Diplomacy and Development Review* (QDDR)

does not discuss tailored deterrence, and the Department's other public statements on deterrence focus on narrower issues such as nuclear proliferation and arms control.⁹⁵ Despite working closely together for shared objectives worldwide, the relationship between the State Department and DoD is typical of the entire interagency system: each Department fiercely defends its own perspectives and priorities.

As a result, true interagency unity of effort is the exception, not the rule. The State Department's QDDR quoted Secretary of Defense Robert Gates' description of the interagency process as "a hodgepodge of jury-rigged arrangements constrained by a dated and complex patchwork of authorities, persistent shortfalls in resources, and unwieldy processes."⁹⁶ These limitations are both structural and largely intentional, as the Executive Branch Departments, the National Security Council and the interagency system were organized first and foremost to advise the President's decisions. The system is intrinsically slow and deliberative unless a crisis elevates an issue to the Principles' Committee or National Security Council for a decision.⁹⁷ Even the imperatives of a decade of war have not transformed the interagency into the chimerical whole-of-government, as reform efforts have consistently failed to launch.⁹⁸ Consequently, the U.S. will wage deterrence with the interagency it has, not the interagency it might want.

After reaching an interagency compromise on a deterrence course of action, the U.S. will also encounter friction in execution. Orders to perform specific deterrence actions may be misunderstood by subordinates or executed differently than expected, garbling the intended deterrence signals.⁹⁹ As demonstrated by the Abu Ghraib scandal and the Air Force's improper transport of nuclear weapons, unauthorized actions and

accidents can be more persuasive than polished strategic communications. As in all types of conflict, fog, friction and chance are irreducible factors that will heavily influence the outcome of a tailored deterrence campaign.

Conclusion and Recommendations

Tailored deterrence is flawed because of its erroneous assumptions that the U.S. can reliably assess adversaries' decision calculus and decisively influence adversaries' choices. Nevertheless, deterrence remains an indispensable tool of U.S. national security policy, since not all potential threats can or should be preempted. The U.S. should modify tailored deterrence to reflect third-wave theory in order to provide policymakers with realistic deterrence options instead of panaceas. These modifications should include accepting ambiguity, recognizing the importance of adversaries' interests and replacing hubris with humility.

Third-wave deterrence theory and innumerable case studies demonstrate that adversaries' decision calculus will remain largely opaque regardless of the extent of the intelligence collection effort. Ubiquitous cognitive biases frequently frustrate accurate assessments and also shape adversaries' perceptions of their environment in idiosyncratic and often unknowable ways. Tailored deterrence should accept this irreducible uncertainty as a limitation rather than assuming that ambiguity can be removed from the equation. This intrinsic ambiguity could be tamed to a certain extent through such methods as: red teaming; psychological profiling of adversary leaders; developing multiple decision calculus models; and analyzing many potential courses of adversary action. Yet, the U.S. should not be overly surprised when an adversary fails to follow the script.

Tailored deterrence's deterministic and effects-based foundation implies that deterrence applies in nearly all situations. However, the U.S. approach should accept that large asymmetries of interests are common in international relations and that such disparities can render deterrence both incredible and irrelevant. Schelling's "threat that leaves something to chance"—the fear of nuclear escalation that overshadowed Cold War confrontations—is not credible when an adversary's actions are on the low end of the conflict spectrum and U.S. survival interests are not at stake. U.S. attempts to sway adversaries from pursuing their interests are only credible when the U.S. has a commensurate interest in the status quo and when the situation is unambiguous.

Deterrent strategies have the most utility when an adversary's pondered action is an unambiguous and attributable affront to vital U.S. interests, rather than an action on the margins. In such unambiguous scenarios, threats to deny benefits and impose costs should be simple, overt and overwhelming. Deterrence by subtlety is vulnerable to misperception and betrays an egocentric bias and overconfidence that the adversary is both able and willing to decode and respond to the faintest U.S. signals.

Finally, tailored deterrence and its practitioners require humility rather than hubris. A more realistic approach would acknowledge that adversaries cannot be imagined as inert, closed systems vulnerable to decisive influence. Instead, deterrence campaigns will be based on a vague understanding of adversary's decision-making process and motives. Given these uncertainties, deterrent actions will be blunt instruments that are subject to friction and misperception, and their true influence on an adversary's choices will normally remain unknown. Such a recalibrated approach reflects the reality that the U.S. can influence world events, but cannot dictate them.

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